

ABSTRACT OF THE DISCLOSURE

A plurality of low-sensitivity pixels 10 and a plurality of high-sensitivity pixels 20 are arranged like a tetragonal grid respectively, and are provided in positions shifted by $1/2$ of an array pitch from each other in a row direction X and a column direction Y. The detected charges of the low-sensitivity pixel 10 and the high-sensitivity pixel 20 are transferred in the column direction Y by a vertical transfer section 31. The charges of the low-sensitivity pixel 10 and the high-sensitivity pixel 20 which are adjacent to each other in the column direction are transferred through the vertical transfer sections 31 which are different from each other.